

Date: Monday, 27/04/2009 12:48:57 PM
 User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: WHEEL ASSEMBLY
Job Number	: 47494		
Estimate Number	: 12099		
P.O. Number	:	Part Number	: D3233041
This Issue	: 27/04/2009 S.O. No. :	Drawing Number	: D3233 REV B
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 1/1 Type : LARGE FAB ASSY	Drawing Revision	: B
Previous Run	: 45266	Material	:
Written By	:	Due Date	: 15/05/2009
Checked & Approved By	: <u>MD 09.04.27</u>	Qty:	10 Um: Each
Comment	: Est. C 05.07.18 D3233-5 was D3332-5; Qty changed by half K J/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D32335	Hub Sleeve
-----	--------	------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Hub Sleeve

Pick:

Qty Part Number

1

D3233-5

Description Batch

Hub Sleeve

B45325 → 4x
 B45171 → 3x
 B46044 → 2x

MD 09/05/05

2.0	D32337	Shaft Sleeve
-----	--------	--------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Shaft Sleeve

Pick

Qty Part Number

1

D3233-7

Description Batch

Shaft Sleeve

B45172 → 4x
 B46045 → 5x

MD 09/05/05

3.0	D32339	Tire & Rim Assembly
-----	--------	---------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Tire & Rim Assembly

Pick:

Qty Part Number

1

D3233-9

Description

Tire & Rim Assembly

Batch

B47607 → 4x
 B45006 → 5x

MD 09/05/05

4.0	NKI 3020	BEARING
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Bearing

Pick:

Qty Part Number

2

NKI 30/20

Description

Bearing & Inner Sleeve

Batch





M111655 → 5x
 M110615 → 5x

MD 09/05/05

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3233-041 PAR #: N/A Fault Category: Prod/Fabassy Lrg NCR: (Yes) No DQA: D Date: 09/05/08
D412-729-041
 Resolution: SCRAP Disposition: SCRAP QA: N/C Closed: LD Date: 09/05/08

NCR: 47494		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09-05-05	4.0	Bearing broke during installation upon removal. A sleeve was forgotten about upon installation, and the bearing was damaged when removed. R.C. Employee error.		replace with a new one Part # NK1 30/20 B <u>111165</u> qty 1	 09/05/06	 09-05-06	 09-05-06	

NOTE: Date & initial all entries

Date: Monday, 27/04/2009 12:48:58 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WHEEL ASSEMBLY

Job Number: 47494

Part Number: D3233041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

SHIM STOCK

.004" Brass Shim Stock



Comment: Qty.: 4.0000 f(s)/Unit Total: 40.0000 f(s)

.004" Brass Shim Stock

Pick:

Qty Part Number Description

Batch

4 Shim Stock 0.004" thick Brass Shim Stock

M102130

SY 09/05/06

6.0

35X45X7

Bearing Seal



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s)

Bearing Seal

Pick:

Qty Part Number Description

Batch

2 35x45x7 Axel Seal

or CR 35x45x7 HMS4 R

M110615 → 1x

M111655 → 9x 17x

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Press out bearings that are supplied with D3233-9 wheel and discard them.

Cut shims and assemble as per Dwg D3233

Spray inside hub and bearing with LPS-3 & block hole with a clean dry rag for storage.

SY 09/05/06

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SY 09/05/06 (x7)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: CABL

SY 09/05/06 (9x)

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/05/07

Job Completion



MF 09-05-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

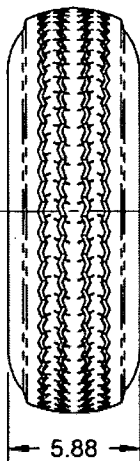
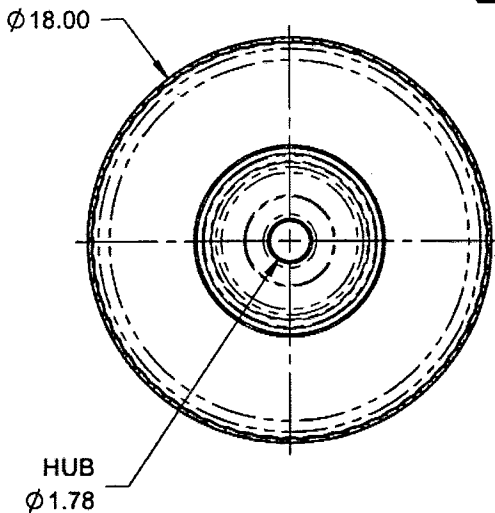
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



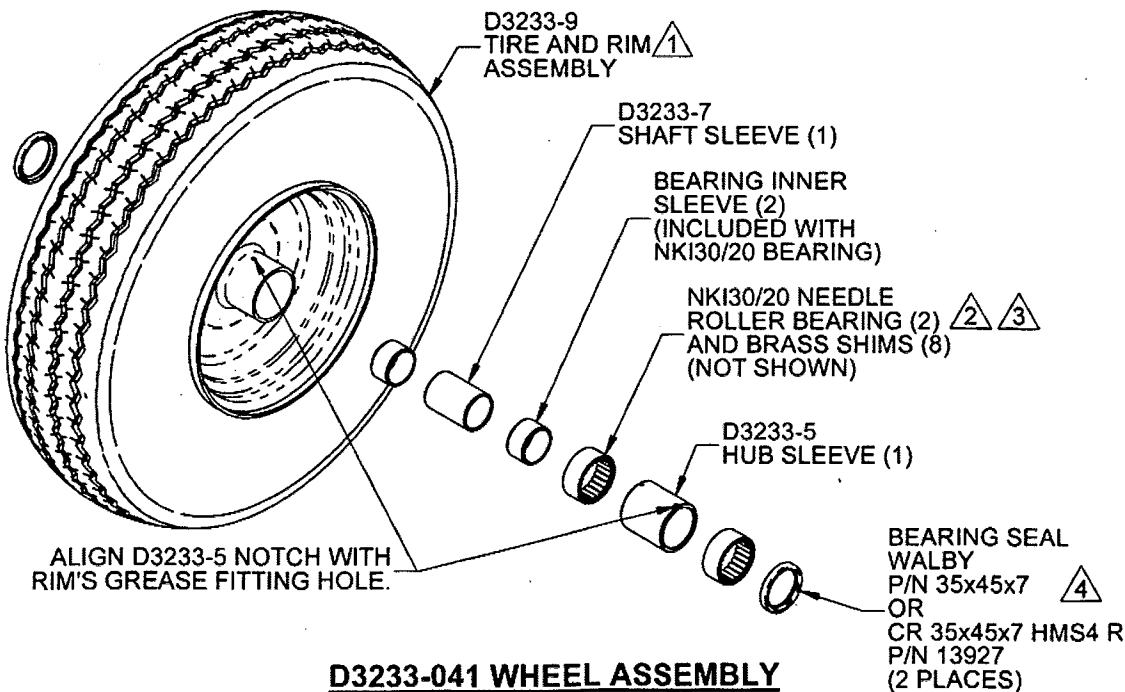
DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3233	REV. B SHEET 1 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1
A	05.02.18	NEW ISSUE	
B	05.03.08	ADDED BEARING SEALS	



RELEASED
05/05/04

WHEEL SPECIFICATIONS		
SIZE	MAXIMUM LOAD	MAXIMUM INFLATION LOAD
TIRE: 19.0 x 5.8 RIM: 5.70 x 8.0	910 LBS (RANGE C)	90 PSI*

* MANUFACTURER'S RECOMENDATIONS
ARE 75 PSI FOR HIGH SPEED USE.



D3233-041 WHEEL ASSEMBLY

NOTES:

- 1) POSSIBLE SUPPLIER: McMASTER-CARR, P/N 8353T74
- 2) POSSIBLE SUPPLIER: GENERAL BEARING
- 3) PRESS FIT NEEDLE ROLLER BEARINGS INTO RIM HUB WITH
(4) 0.5 X 0.75 X 0.004 BRASS SHIMS PER BEARING, (1) AT EACH QUADRANT.
- 4) POSSIBLE SUPPLIER: GENERAL BEARING
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

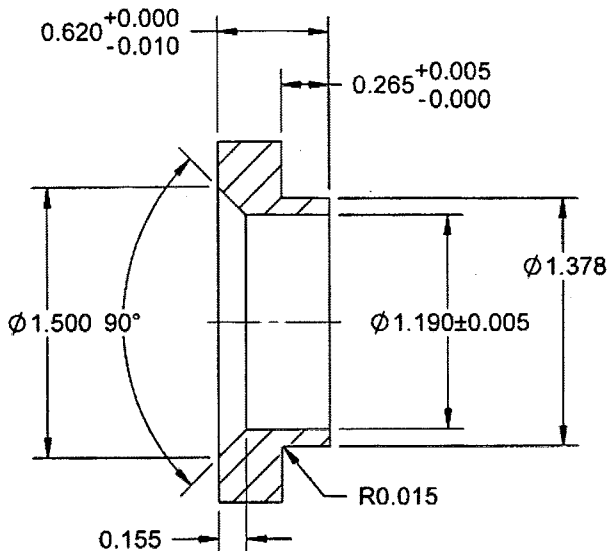
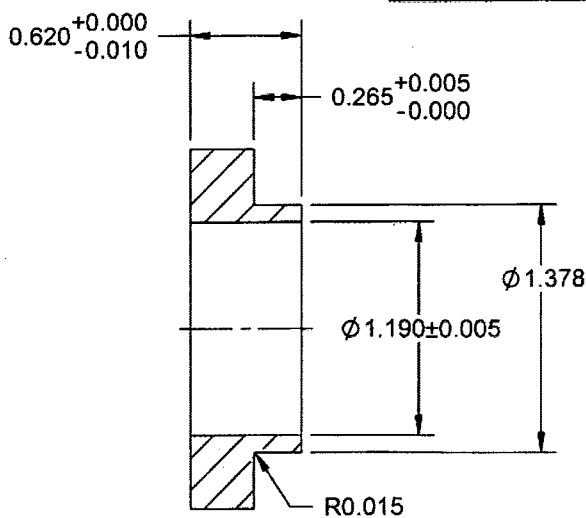
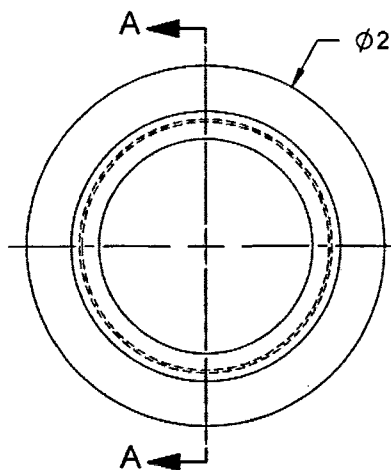
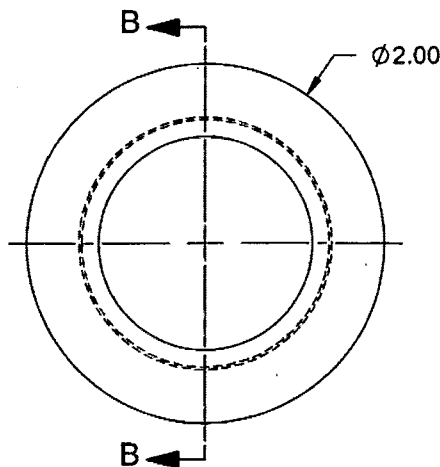
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3233	REV. B SHEET 2 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1

**SECTION A-A****D3233-1 INSIDE WASHER****SECTION B-B****D3233-3 OUTSIDE WASHER****NOTES:**

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
- 2) FINISH: POWDER COAT FIRE RED (REF. 4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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WORK ORDER
NO. *47494*

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

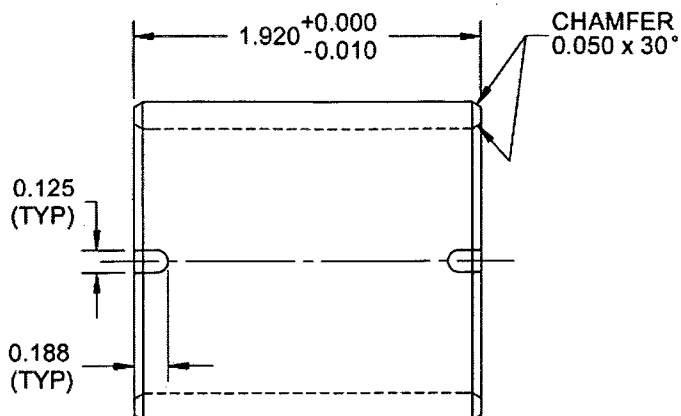
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

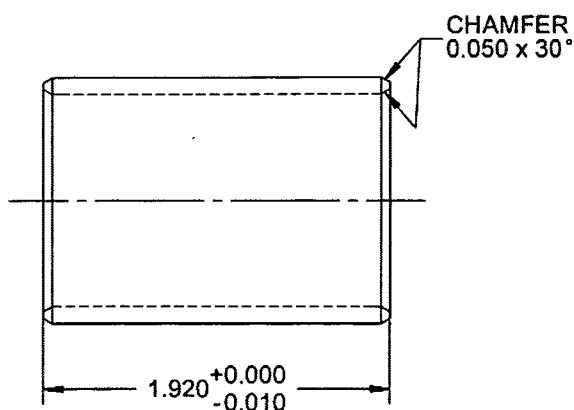
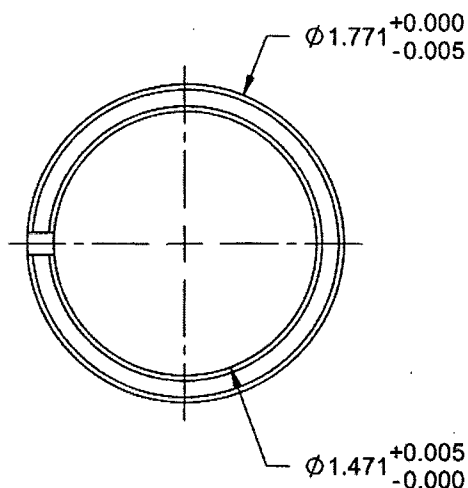


DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED R	APPROVED [Signature]	DRAWING NO. D3233	REV. B SHEET 3 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1

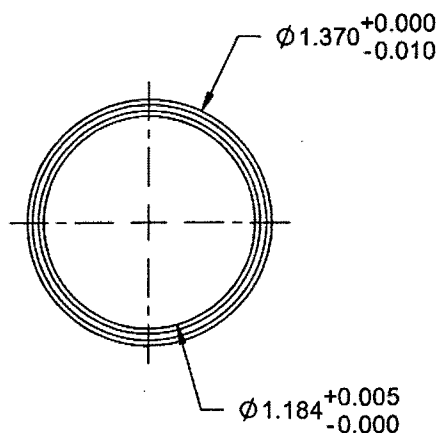
RELEASED
[Signature]
05/05/04



D3233-5 HUB SLEEVE



D3233-7 SHAFT SLEEVE



NOTES:

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.030

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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